ERNEST FLEMING
MACHINERY & EQUIPMENT Pty Ltd

Flamingo Single-Head Paste/ Liquid Filling Machine:

User Manual – Model GWEFP/L

Semi -Automatic Piston Filling Machine:

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1. Principle and Property:

Model GWEFP/L series filling machines are semi-auto piston type fillers. The liquid or paste is pumped through a piston driven by a cylinder, where its flow direction is controlled by a three- way rotating valve. The Cylinder stroke is controlled by a signal valve and the filling amount is adjusted by a hand – operated wheel (Data shown on the counter is for reference only)

The GWEFP/L is higher in accuracy, simpler in construction and simpler in operation making it an ideal machine for your filling operations.

2. Specifications

Technical Parameters	Air Pressure	4-6kg
	Filling Speed	0 – 50 Bottles/ Min
	Filling Accuracy	+-2%
	Voltage	-
	Power	-
	Current	-

3. Safe Operation

This machine is suitable for filling paste and liquid substances in foodstuff and chemicals and cannot be used for other purposes.
In order to ensure safe operations, note the following:

- Use only compliant air sources (referring to the specifications)
- Ensure the air sources are disconnected before disassembling for maintenance and cleaning

4. Machine Operation

The following variables should be taken into account before operating the machine:

- Filling Accuracy – Compressed air stability, Material uniformity and filling speed
- Filling Speed – Material villosity, Cylinder stroke, Material cylinder size, and Filling nozzle size
- Filling Style – There are two methods of operation for this machine, Auto filling and foot pedalling which can be chosen at your discursion (auto only recommended for for a skilled operator)

5. Installation and Adjustments

1. Mount the material hopper at the top of the large square three way control valves using the anchor ears to lock the connector
2. Confirm signal valve position (Hand wheel)
3. Open the air source (sliding valve)
4. Switch machine to “Pedal” operated
5. Operate pedal until material is flowing freely
6. Adjust the throttle valves 1 & 2 to obtain a proper filling speed (To raise efficiency, the pumping speed can be faster and filling speed slower and vice versa to increase accuracy
7. Take measurements of the filling amount and adjust the filling amount to the set value
8. Take down the values on the counter and the filling amount you would like to use as a default for reference

6. Maintenance

- The machine body is made of stainless steel. Alcohol can be used for cleaning surface stains or other approved products
- Lubricant has been applied to the machine already, do not apply more unless otherwise advised
- The valve body, rotary valves, charging basket, three- way joint and charging cylinders can all be disassembled for cleaning

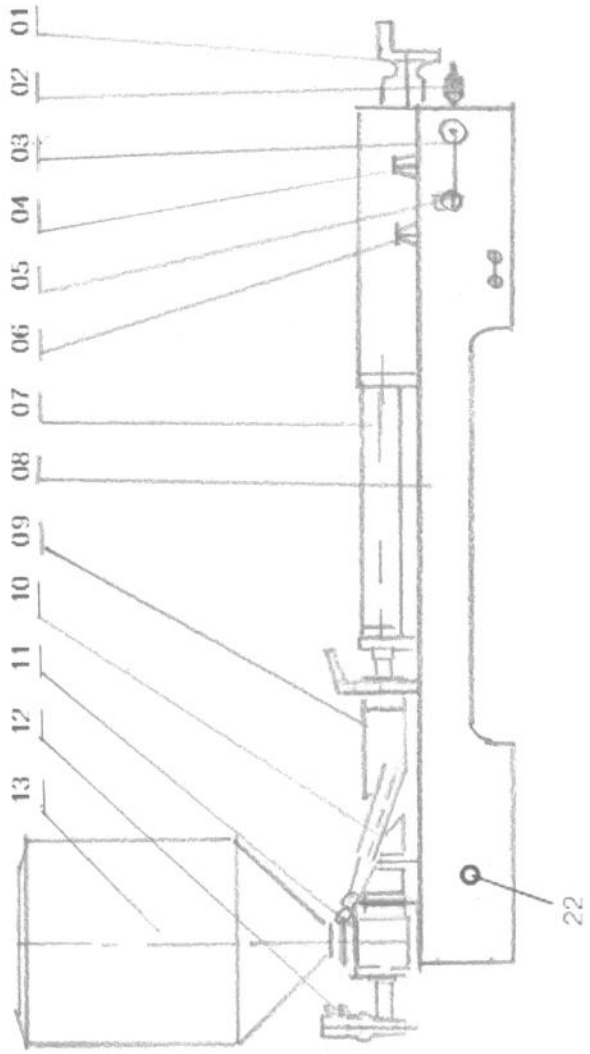
7. Filling Speed

The filling speed depends on the following 5 factors:

- Pumping speed – Defined by the material viscosity and the rotary valve
- Filling nozzle size – With a larger nozzle, the filling speed will be faster
- Material frothing – Filling speed will be slower if your material froths
- Filling amount – Filling speed will be slower with greater amounts
- Filling accuracy – A higher accuracy will mean a slower filling speed

8. Diagram 1 、2、3

Diagram 1



1. Hand wheel　　2. Air source switch　　3. Plate-type manometer

4. Regulating filter　　5. Selection switch　　6. Reset switch

7. Cylinder　　8. Machine body　　9. Cylinder for Material

10. Mini-cylinder　　11. Valve body　　12. Filing nozzle

13. Charging basket

Diagram 2

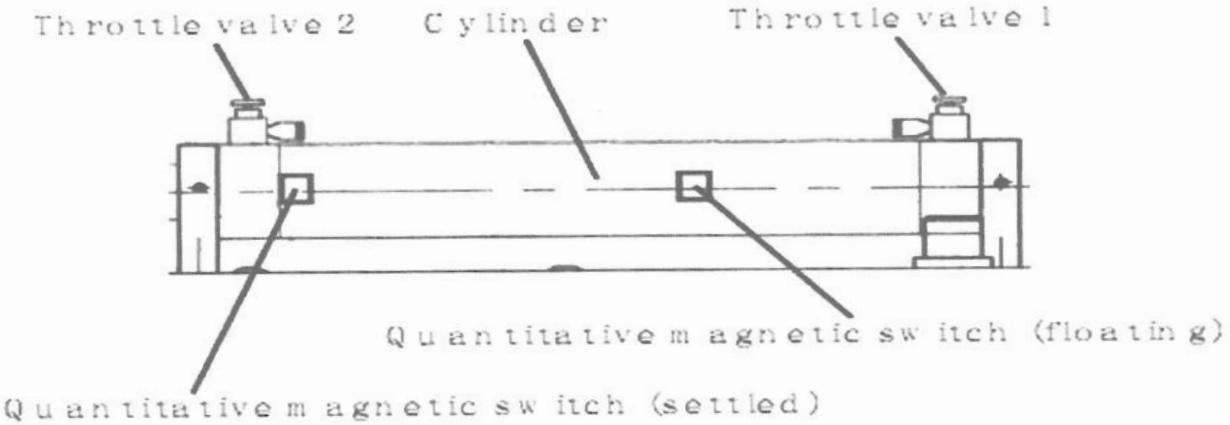
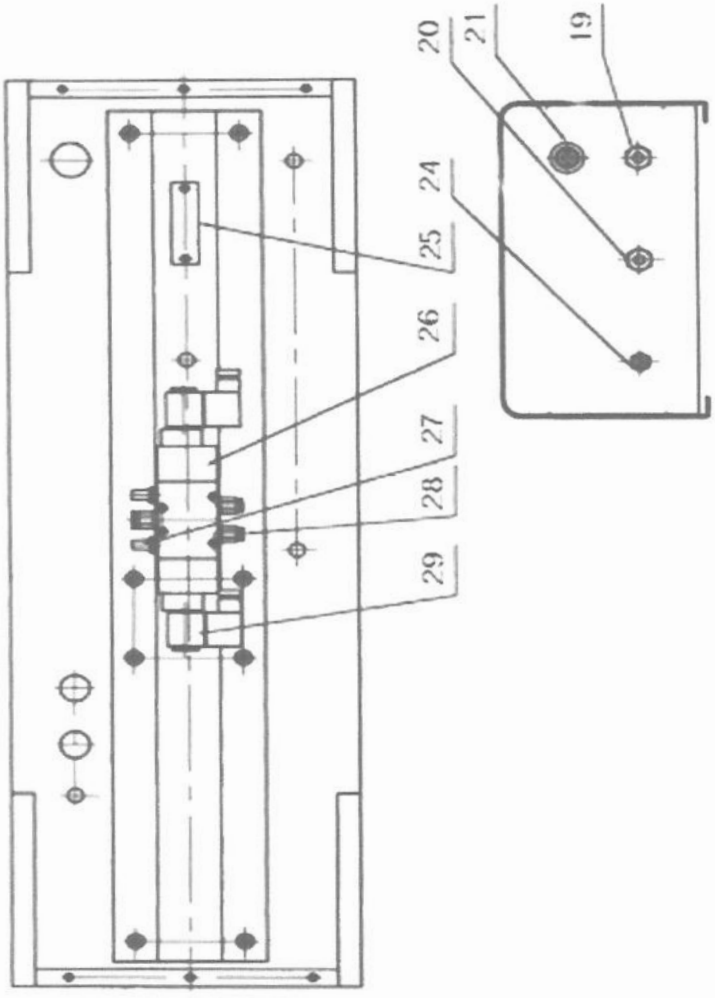


Diagram 3



19. Cable connector 20. Fuse holder 21. Air source switch

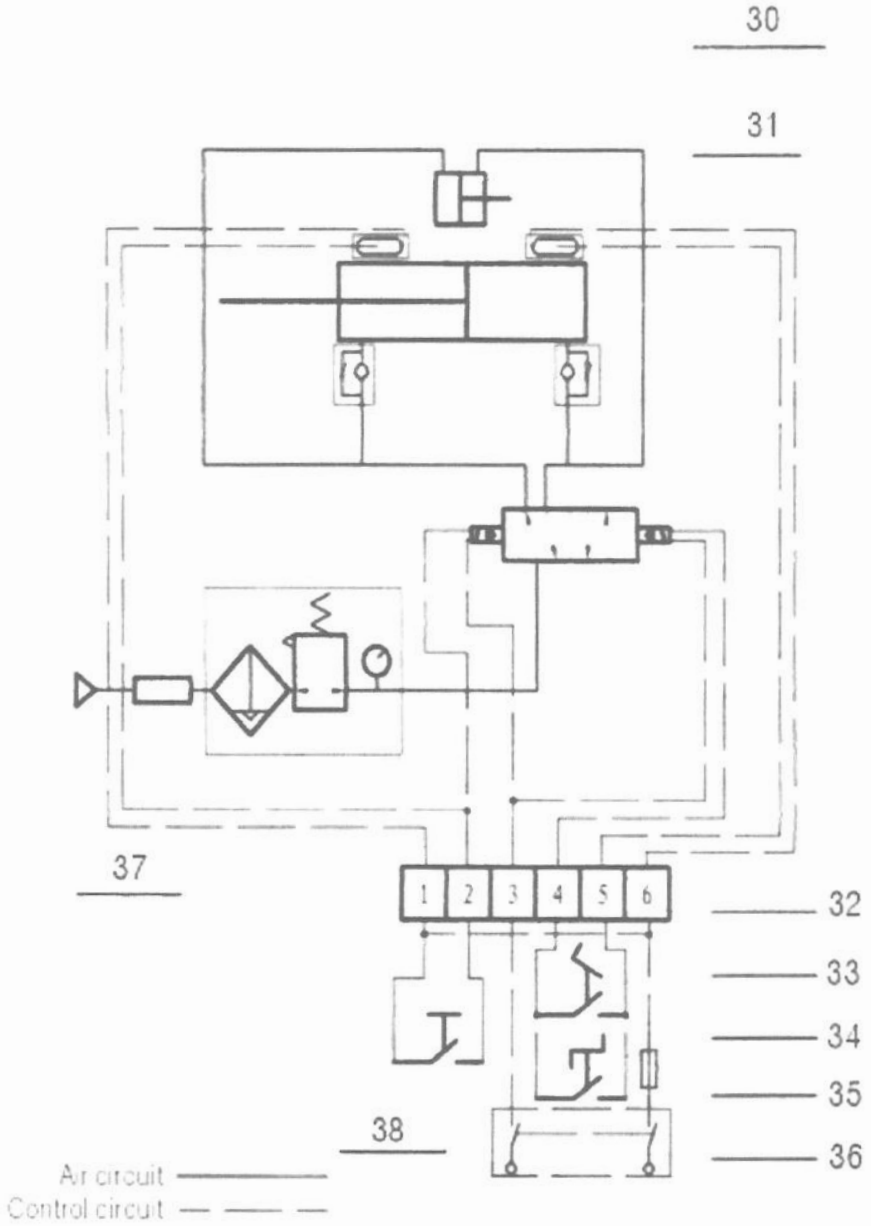
22. Cable connector (connected to pedal switch)

23. Crawl switch (choose) 24. Power switch 25. Terminals

26. Solenoid (two-position five- way) 27. Silencer

28. Straight way valve 29. coil

9. AIR CIRCUIT CONTROL DIAGRAM



30. Cylinder for material filling nozzle 31. Cylinder for material pushing
32. Terminal 33. pedal switch 34. Selection switch
35. Fuse 36. Master switch 37. Air source switch 38. Reset switch

11. Troubleshooting

Problem	Cause	Solution
Piston not moving	Air Supply abnormal	Disconnect, check compressor, check airlines, ensure air source switch is on
	Signal valve	Check positioning
	Material viscosity	Ensure material is suitable for machine type
Filling amount inaccurate	Signal valve	Check positioning
	Pumping speed	Reduce speed (usually only applies to materials with a higher viscosity)
	One-way valve	Material clog gage, clear before resuming
	Pipe joints	Ensure there are no leaks in the lines
Material Leaks	Sealing ring	Ensure the sealing ring on the piston is not broken
	Piston rod	A loose piston rod can cause material leaks, ensure they are all fastened tight